

List of Contents

NUMBER 1

- | | | |
|---|-----|---|
| | i | Softstrip® computer-readable data strip containing the table of contents of this issue of <i>Computers & Fluids</i> |
| M. Anwar and
S. C. R. Dennis | 1 | Numerical methods for steady viscous flow problems |
| T. R. Govindan and
B. Lakshminarayana | 21 | A space-marching method for the computation of viscous internal flows |
| A. McKerrell | 41 | The global element method applied to fluid flow problems |
| B. H. Gilding | 47 | A numerical grid generation technique |
| A. Thyagaraja and
D. F. Fletcher | 59 | Buoyancy-driven, transient, two-dimensional thermo-hydrodynamics of a melt-water-steam mixture |
| S. M. Han, S. T. Wu and
M. Dryer | 81 | A three-dimensional, time-dependent numerical modeling of super-sonic, super-alfvénic MHD flow |
| I. H. Parpia,
C. P. Kentzer and
M. H. Williams | 105 | Multidimensional time dependent method of characteristics |
| | I | Announcements |
| | III | Software Survey Section |

NUMBER 2

- | | | |
|--|-----|---|
| | i | Softstrip® computer-readable data strip containing the table of contents of this issue of <i>Computers & Fluids</i> |
| J. H. Morrison and
M. Napolitano | 119 | Efficient solutions of two-dimensional incompressible steady viscous flows |
| Jeffery S. Dekruif and
Ahmed A. Hassan | 133 | Implications of truncating semi-infinite physical domains on the accuracy of the solutions to the N-S equations |
| Steven Keleti and
X B Reed Jr | 147 | Spectral properties of exact random solutions to Burgers' equation for modified Thomas initial conditions |
| D. Leutloff, K. G. Roesner
and R. C. Srivastava | 175 | Numerical solution of converging shock problem |

**S. Kishore Kumar,
William I. Thacker and
Layne T. Watson**

- 183 Magnetohydrodynamic flow and heat transfer about a rotating disk with suction and injection at the disk surface

Hiroyuki Kikukawa

- 195 Numerical simulation of tidal residual flow by an explicit subdomain finite element method

Technical Note

J. P. Pulicani

- 207 A spectral multi-domain method for the solution of 1-D-Helmholtz and Stokes-type equations

I Software Survey Section

NUMBER 3

- i Softstrip® computer-readable data strip containing the table of contents of this issue of *Computers & Fluids*

Editorial

Stanley G. Rubin

- iii *Computers & Fluids*: a retrospective

H. T. Lai and P. K. Khosla

- 217 Global pressure relaxation procedure for compressible turbulent strong interaction flows

P. Laure and Y. Demay

- 229 Symbolic computation and equation on the center manifold: application to the Couette-Taylor problem

**Luis G. Reyna and
Stefan Menne**

- 239 Numerical prediction of flow in slender vortices

V. Eswaran and S. B. Pope

- 257 An examination of forcing in direct numerical simulations of turbulence

R. J. Bodonyi and P. W. Duck

- 279 A numerical method for treating strongly interactive three-dimensional viscous-inviscid flows

**S. C. R. Dennis and
P. W. Duck**

- 291 Unsteady flow due to an impulsively started rotating sphere

P. W. Duck and R. J. Bodonyi

- 311 Oscillatory flow over a semi-infinite flat plate at low Reynolds numbers

M. J. Miksis and L. Ting

- 327 A numerical method for long time solutions of integro-differential systems in multiphase flow

**Leonid Shtilman,
Richard B. Pelz and
Arkady Tsinober**

- 341 Numerical investigation of helicity in turbulent flow

I Announcements

V Software Survey Section

PEAK 2D and 3D video/computer motion analysis systems, contributed by Phillip J. Cheetham

NUMBER 4

- i Softstrip® computer-readable data strip containing the table of contents of this issue of *Computers & Fluids*
- B. Ramaswamy** 349 Finite element solution for advection and natural convection flows
- M. Perić, R. Kessler and G. Scheuerer** 389 Comparison of finite-volume numerical methods with staggered and colocated grids
- Reiyu Chein and J. N. Chung** 405 Discrete-vortex simulation of flow over inclined and normal plates
- Sang-Wook Kim** 429 A fine grid finite element computation of two-dimensional high Reynolds number flows
- N. A. Hill** 445 Numerical studies of "side-by-side" and other modes for the Taylor problem in a finite annulus
- A. Farcy and T. Alziary de Roquefort** 459 Chebyshev pseudospectral solution of the incompressible Navier-Stokes equations in curvilinear domains
- A. Picart, R. Borghi and J. P. Chollet** 475 Numerical simulation of turbulent reactive flows
- Technical Note*
S. G. Rubin 485 RNS/Euler pressure relaxation and flux vector splitting
- I Announcements
- III Software Survey Section